

REMARKS

Claims 1, 9, 10, 26, 35, 37, 44, 52, 53 and 68 are amended. Claims 80-82 are added. Claims 1-82 are in the application for consideration.

The specification is amended in a manner which obviates the Examiner's drawings objections. Accordingly, such objections to the drawings should be withdrawn, and action to that end is requested.

Claim 26 has been amended as requested by the Examiner.

Claim 8 stands rejected as being incomplete for omitting essential elements. Applicant disagrees and requests reconsideration. Specifically, claim 8 depends from claim 5, thereby requiring that the stated porous oxide comprising indium and tin be electrically conductive. Further, Applicant's paragraph [0032] at page 10 of the specification clearly indicates that tin oxide and indium oxide are electrically conductive alone, and paragraph [0034] indicates that $\text{In}_x\text{Sn}_y\text{O}$ is also electrically conductive. Accordingly, any suitable atomic quantities of "x" and "y" would be utilizable, as would clearly be recognized by the artisan, depending upon the relative ratio of indium and tin precursor feeds as long as the resulting oxide is electrically conductive. Accordingly, claim 8 is definite and complete, and there is no omission "amounting to a gap between the elements" as the Examiner asserts, nor are the variables "x" and "y" critical in determining the scope and limitations of the claim at least in light of the claims from which claim 8 depends and Applicant's disclosure in the specification. Accordingly, it is

respectfully requested that the Examiner's rejection of claim 8 under 35 U.S.C. §112 be withdrawn, and action to that end is requested.

The independent claims as presented herein are amended to recite "providing a substrate within a deposition chamber". Such clearly does not constitute new matter, as any substrate which is positioned within a deposition chamber must also inherently be provided therein.

Claims 9-12, 35, 37 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Such claims have been so rewritten or now depend from claims so rewritten. Accordingly, such claims should be formally allowed. Further, claims 52 and 53 have been rewritten in independent form. It is believed such should be formally allowed for analogous reasons upon which the Examiner found claim 9 and 10 to contain allowable subject matter. Action to that end is requested.

Further, claims 9, 10, 52 and 53 have been amended to change "indium containing" to "indium-containing", and to change "tin containing" to "tin-containing", thereby inserting more preferred and grammatically correct hyphenation. Absolutely no change in scope occurs by such amendment. Entry of the same is requested.

Independent claim 1 stands rejected as being anticipated by Werkhoven et al. Applicant disagrees and requests reconsideration.

Specifically, Applicant's independent claim 1 recites successively repeating the chemisorbing and the contacting with remote plasma oxygen and with remote plasma nitrogen effective to form porous oxide on the substrate. Werkhoven et al. does not disclose or infer such. The Examiner mistakenly asserts that Werkhoven et al. discloses the formation of porous oxide, as the oxide formed is allegedly disclosed to contain "channels" in paragraph [0056]. Regardless of what is disclosed in paragraph [0056], Applicant disagrees that if an oxide layer were formed to have a "channel" therein (meaning some form of an open or covered trench) such would constitute a "porous" oxide to a person of skill in the art. Rather, "porous oxide" clearly requires an oxide which comprises some form of "pores", and an elongated trench is not a "pore" and would not be so considered by a person of skill in the art.

Regardless, paragraph [0056] in Werkhoven et al. does not disclose the formation of "channels" in an oxide layer, as the Examiner apparently alleges. The only reference in paragraph [0056] to a "channel" is in the context of a "transistor channel". A "channel" of a transistor is understood by a person of skill in the art to refer to a channel region of a field effect transistor. Such a "channel" is a solid mass of material received between a pair of solid mass source/drain regions, and proximate which a switchable field effect transistor gate is received. Accordingly, the "channel" in Werkhoven et al. upon which the Examiner relies is a solid mass of material, not some inferred void in an oxide layer.

Further, it is not inherent that the processing of Werkhoven et al. would result in the formation of a porous oxide. To establish inherency, it must be clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill in the art. Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. (MPEP §2112). There is absolutely no disclosure or inference in Werkhoven et al. that a porous oxide is formed. Further, no porous material is shown in the drawings nor is such described, so if any inference exists it is that the oxide formed is not porous.

For the foregoing reasons, the Examiner's anticipation rejection of claim 1 is seen to be in error, and should be withdrawn. Action to that end is requested.

Applicant's independent claims 44 and 68 also recite the formation of porous oxide (claim 44) or porous aluminum oxide (claim 68). Such claims are rejected as being obvious over Werkhoven et al. However, such reference is inapplicable for the reasons asserted above with respect to claim 1, and the rejection thereof should be withdrawn. Action to that end is requested.

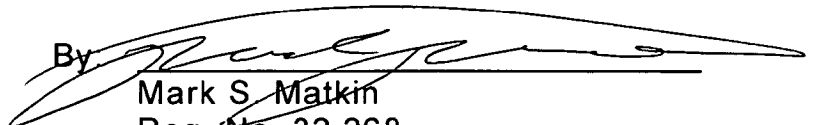
Applicant's dependent claims should be allowed as depending from allowable base claims, and for their own recited features which are neither shown nor suggested in the cited art. Action to that end is requested.

Dependent claims 80-82 are added. Such recite that the successive repeating of the chemisorbing and the contacting with remote plasma oxygen and with remote plasma nitrogen forms the subject porous oxide to be void of nitrogen. Such is inherently supported in Applicant's application as-filed such that no new matter exists. For example and by way of example only, Figs. 2 and 7 clearly show exposure of the substrate to nitrogen, and the respective subsequent Figs. 3 and 8 show no nitrogen being incorporated therein. Further, paragraph [0043] discloses the formation of a porous oxide where nitride is initially provided but then removed from the deposited layer. Accordingly, no new matter is added in claims 80-82. Werkhoven et al. is clearly only understood to teach the incorporation of nitrogen into its deposited layer in every embodiment where the layer being formed is exposed to nitrogen, and which is contrary to Applicant's added claims 80-82. Accordingly, such should be allowed for this additional asserted reason.

This application is believed to be in immediate condition for allowance, and action to that end is requested.

Respectfully submitted,

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